

US EPA ARCHIVE DOCUMENT



Transportation Conformity and MOVES

2014 Region 4 Modelers Workshop

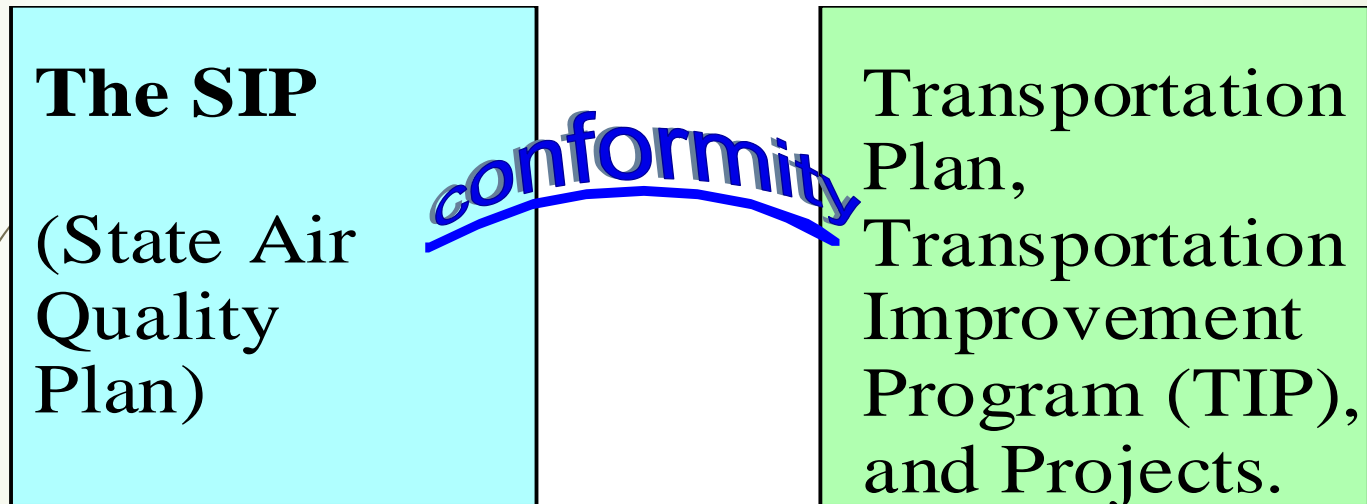
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Transportation Conformity...

Connects air quality & transportation planning.



Motor Vehicle Emissions Budgets

- ▶ The transportation conformity rule defines the term “motor vehicle emissions budget”
- ▶ MVEBs are the on-road mobile source portion of the SIP’s overall emissions inventory (40 CFR 93.101).

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- ▶ MVEBs are included in:
 - ▶ Reasonable further progress (RFP) plans;
 - ▶ Attainment demonstrations; &
 - ▶ Maintenance plans contain budget.

Transportation conformity enforces SIP budgets as a ceiling .

On-Road Emissions Inventory Links SIPs and Transportation Conformity

- ◎ The on-road emissions inventory is:
Basis for motor vehicle emissions
budgets 40 CFR 93.118(e)(4)(v)

(4) EPA will not find a motor vehicle emissions budget in a submitted control strategy implementation plan revision or maintenance plan to be adequate for transportation conformity purposes unless the following minimum criteria are satisfied:

(v) The motor vehicle emissions budget(s) is consistent with and clearly related to the emissions inventory and the control measures in the submitted control strategy implementation plan revision or maintenance plan;

How Is the On-Road Emissions Inventory Calculated?

► **Motor Vehicle Emissions Simulator (MOVES)**

- EPA's latest mobile emissions model called **MOVES2014**
- Replaces the MOVES2010 series (MOVES2010, MOVES2010a and MOVES2010b)
- Estimates emissions and energy use from all on-road sources at the national, county and project scales

MOVES2014 and Regional Conformity Analyses

- Final rule became effective on October 7, 2014 (79 FR 60343) started a 24-month grace period which ends October 7, 2016
- After **October 7, 2016**, MOVES2014 must be used for new regional conformity analyses
 - MOVES2010b can be used for any conformity analysis started before October 7, 2016 unless
 - Budgets based on MOVES2014 have already been found adequate or approved
 - EPA encourages use of MOVES2014 for new MOVES analyses
 - Use consultation to determine which version of the model to use during the grace period
 - See EPA's MOVES Policy Guidance for more details:
 - www.epa.gov/otaq/models/moves/documents/420b14008.pdf

MOVES2014 and SIP Submittals

- 24-month grace period does not apply to SIP submittals CAA 172 (c) (3) and CFR 51.112 (a)(1)
- MOVES2014 must be used as expeditiously as possible for ozone, CO, PM and nitrogen dioxide (NO₂) SIP development
 - Consult with EPA regional office to determine if:
 - Significant work has been done a submittal
 - Timing of SIP submittal and EPA action on the SIP
 - SIPs already submitted or that will be submitted to EPA shortly after the release of the model do not have to be revised

Key Dates to Remember

Types of Conformity Grace Periods	Key Date
MOVES2014 Grace Period for Transportation Conformity Ends	October 7, 2016
2012 PM _{2.5} Conformity Implementation Starts	1 yr after <u>effective</u> date of designations

MOVES2014



Office of Transportation and Air Quality
US Environmental Protection Agency

What's New in MOVES2014

- New OTAQ rules
 - Tier 3
 - HD GHG phase 1
 - LD GHG
- New Science
 - Relied on dozens of new test programs and scientific studies
 - Future forecasts(VMT, population, sales)
 - Improved functionality

MOVES2014 Drive Cycle Map

Source	Min Speed (mph)	0	2.5	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
Type	Max Speed (mph)	2.5	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	100
11	Motorcycle	X				X		X	X			X			X		X	X
21	Passenger Car	X				X		X	X			X			X		X	X
31	Passenger Truck	X				X		X	X			X			X		X	X
32	Light Commercial Truck	X				X		X	X			X			X		X	X
41	Intercity Bus				X	X	X		X		X			X	X		X	
42	Transit Bus				X			X				X		X	X		X	
43	School Bus				X			X				X		X	X		X	
51	Refuse Truck	X			X	X		X	X			X	X	X			X	
52	Single Unit Short-haul Truck		X		X	X	X		X		X			X	X		X	
53	Single Unit Long-haul Truck		X		X	X	X		X		X			X	X		X	
54	Motor Home		X		X	X	X		X		X			X	X		X	
61	Combination Short-haul Truck			X	X	X		X	X			X	X	X			X	
62	Combination Long-haul Truck			X	X	X		X	X			X	X	X			X	


White boxes with X have existing driving schedules in MOVES
 Blue boxes indicate new schedules added for MOVES2014
 Gray boxes require interpolation between explicit schedules

Updates to CO rates

- CO start rates for new vehicles were lowered
 - Based on EPA cold start study
- No temperature sensitivity for running emissions (same as MOVES2010)

Database Converter

- Converts MOVES2010b project database into MOVES2014 compatible database
 - Adds fuel region to fuel supply table
- Converter has limitations for use in regulatory modeling (e.g., PM hot-spot analysis)
 - Once a MOVES2010b db has been converted, additional steps are necessary:
 - Need to update database with default MOVES2014 fuels
 - Need to update any other MOVES2010 defaults to MOVES2014



Thank You

Please send follow-up questions
mobile@epa.gov

Coming Soon!

- MOVES2014 Hands-On Training Course for New Users
- PM Hot-spot guidance for transportation conformity
- MOVES CO project-level guidance
- 3-day training for PM-hot-spot analyses
- See the MOVES webpage for updates and additional reference materials www.epa.gov/otaq/models/moves/
- Conformity updates will be posted here:
<http://www.epa.gov/otaq/stateresources/transconf/projectlevel-hotspot.htm>

Questions





Contact Information

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MOVES



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